STATE OF ILLINOIS
ILLINOIS COMMERCE COMMISSION

AMEREN TRANSMISSION COMPANY OF ILLINOIS	)	
	)	
Petition for a Certificate of Public Convenience and Necessity, pursuant to Section 8-406.1 of the Illinois Public Utilities Act, and an Order pursuant to Section 8-503 of the Public Utilities Act, to Construct, Operate and Maintain a New High Voltage Electric Service Line and Related Facilities in the Counties of Adams, Pike, Brown, Schuyler, Cass, Fulton, Morgan, Sangamon, Shelby, Montgomery, Christian, Scott, Moultrie, Macon, Coles, Clark, Edgar and Champaign, Illinois.	)	Docket No. 12-0598

INITIAL BRIEF ON REHEARING OF AMEREN TRANSMISSION COMPANY OF ILLINOIS

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I. Introduction

This rehearing concerns a narrow set of issues pertaining to the Illinois Rivers Project. The Commission's August 2013 Final Order found that a 345 kV transmission line across central Illinois will benefit the electrical grid in numerous ways and is therefore necessary. No party contests these findings and they are not the subject of rehearing. The Commission granted rehearing for the limited purpose of considering additional evidence about where certain segments of the transmission line should be routed, and how certain interconnections should be made. The rehearing record provides the Commission with the information it needs to decide these details.

The issue with interconnections is whether certain substations are needed and where they should be built. Most of these issues are resolved. Staff now agrees that new or expanded substations should be built at Kansas, Sidney and Rising. ATXI and the Village of Mt. Zion have stipulated to one of Staff's proposed locations for the Mt. Zion substation. The only remaining dispute is whether a new substation is needed at Ipava. The record on rehearing confirms that a new substation is needed there to accommodate future growth.

The Commission's August 2013 Order approved routes for the Meredosia to Pawnee segment and the eastern portion of the Mt. Zion to Kansas segment, among others. The parties that objected to these routes before continue to object to them now. While the evidence on rehearing shows that alternate routes are viable, it does not appear to ATXI that there is any compelling reason for the Commission to rescind its previous decision and order the segments built elsewhere.

Perhaps the most significant rehearing issue concerns Staff and ATXI's competing proposals for routes between the Pawnee and Mt. Zion substations. MISO's approved MVP called for linking these substations with routes that connect in Pana. The Commission's August

2013 Order questioned whether this would be the least cost means of connecting the Project, and ordered Staff to develop a route that connects Pawnee and Mt. Zion by a substation in Kincaid. Staff filed such a route in October 2013.

If the issue before the Commission was simply a matter of choosing the shortest and most direct route to connect the sections of the Transmission Line that have already been approved, Staff's Kincaid route would be one choice. But managing an electrical system involves much more than connecting points on a map. It involves identifying issues before they become problems, and proactively addressing these issues in a least-cost manner. ATXI has shown (and no one disputes) that the Decatur area is likely to experience voltage problems if something isn't done by 2016. ATXI and MISO have also identified a need to address generator stability at the Coffeen power plant. And, mine subsidence is threatening the Pana substation. By routing the Project through Pana, ATXI can complete the Transmission Line while also addressing these local reliability needs. Routing the Transmission Line through Kincaid would *not* address these needs. When all material and relevant factors are weighed and considered, the Pawnee to Pana to Mt. Zion routes win the comparison to the Kincaid option hands down.

II. Legal Standard

The Commission is required to grant a certificate of public convenience and necessity upon a finding that "the Project is necessary to provide adequate, reliable and efficient service to the public utility's customers and is the least-cost means of satisfying the service needs of the public utility's customers," or that "the Project will promote the development of an effectively competitive electricity market that operates efficiently, is equitable to all customers, and is the

least cost means of satisfying those objectives." 220 ILCS 5/8-406.1(f)(1).[1]

"Least cost" does not mean "lowest cost" or "fewest dollars." Indeed, the concept of "least cost" encompasses more than monetary costs. "[T]he proper determination of least cost is not simply a financial analysis, but involves a comprehensive consideration and balancing of the overall costs and externalities against the benefits of the route proposals." *Ill. Power Co.*, Docket 06-0706, Order at 52 (March 11, 2009). Non-monetary costs and externalities that the Commission routinely considers include proximity to residences, environmental impacts, and the presence of existing corridors. *See, e.g., Ill. Power Co.*, Docket 06-0706, Order on Reopening at 33 (June 23, 2010). In some cases, the Commission has found that these externalities outweighed monetary costs, and on that basis has approved projects that cost more to build than an alternative. *See, e.g. Ill. Power Co.*, Docket 06-0179, Order at 16-17 (May 16, 2007) (approving a Staff recommended route that cost $3.0 to $3.9 million more than the alternative, because the approved route would avoid impacts to five dwellings).

III. Project Connection through Kincaid versus Pana

In December 2011, after many years of analysis and stakeholder input, the MISO Board of Directors approved several projects slated for development across the MISO footprint. (MISO Ex. 1.0 (Rev.), p. 15.) The regional MVP Portfolio of projects provides additional connectivity across the grid, reduces congestion, and enables access to a broader array of energy resources by load in Illinois. (*Id.* at 15-17, 19.) In developing the Project, ATXI and Ameren Services worked with MISO to determine which specific pathways were consistent with regional needs and also presented opportunities to address local reliability concerns. (Order at 11.) The Pawnee to Pana to Mt. Zion routes (referred to by witnesses, and hereinafter, as the "Pana connection")

[1] The Commission found that the two criteria, under sections 8-406.1(f)(2) and 8-406.1(f)(3), relating to the ability to manage and finance the Project were met. (Order at 129-32.) They are not at issue here.

were chosen as a solution to address Decatur-area reliability concerns and also to mitigate instability at the Coffeen generation plant. (ATXI 1.0 (RH), p. 4.)

The August 2013 Order questioned whether ATXI or MISO had adequately studied an alternative route from Pawnee to Mt. Zion through a connection at the Kincaid substation. (Order at 83-84.) The information now available to the Commission shows conclusively that a Kincaid connection will not address the same service needs as the Pana connection. This fact will not change with more studies. Even Staff concedes there are potentially valid concerns regarding use of a Kincaid connection. (ICC Staff Ex. 2.0, p. 7.) Because the Pana connection will address service needs that the Kincaid connection will not, the Pana connection should be approved. In addition, testimony shows that the Pana connection is the least cost option for Ameren Illinois area customers when compared to a Kincaid connection due to the necessary relocation of the existing transmission facilities at Pana due to mine subsidence. (ATXI Exs. 1.6 (RH); 9.0 (RH), pp. 3-4; Tr. 124.) Thus, as the Pana connection meets all of the required service needs at the least cost to Ameren Illinois area customers, the Pana connection should be approved.

The service needs of the Project are not limited to simply identifying a connection between Pawnee and Mt. Zion.

The legal standard for granting a certificate is whether "the Project is necessary to provide adequate, reliable and efficient service to the public utility's customers and is the least-cost means of satisfying the service needs of the public utility's customers." 220 ILCS 5/8-406.1(f)(1). This standard expressly requires the Commission to determine what "service needs" are being addressed by a project. Once the service need is identified, alternatives to meeting that need may be identified, and the cost associated with each alternative quantified. The standard requires a "least cost" determination—that the Project is "least cost," not the "fewest dollars."

Ill. Power Co., Docket 06-0706, Order at 52 (March 11, 2009) ("[T]he proper determination of least cost is not simply a financial analysis, but involves a comprehensive consideration and balancing of the overall costs and externalities against the benefits of the route proposals."). If a project alternative does not meet the service need, it cannot be acceptable, no matter what the cost. *See, e.g., Union Elec. Co.*, Docket 01-0516, Order at 12-13 (Jan. 15, 2002) (finding that construction of peaking plant was the least-cost alternative where other options would not timely address a shortfall in capacity); *Ameropan Oil Corp. v. Ill. Comm. Comm'n*, 298 Ill. App. 3d 341 (1st Dist. 1998) (holding, where two routes are available, one of which meets a service need more timely than the other, Commission acts reasonably by approving the more timely route).

The decision whether to approve routes through Kincaid versus Pana is a matter of deciding which "service needs" the Commission is willing to address in this proceeding, and which service needs are best addressed by a particular route. If all the Commission is concerned about is finding the route that completes a connection between Pawnee and Mt. Zion at the lowest baseline dollar cost, and ignores all other material and relevant considerations, the Kincaid connection wins.

If, however, the Commission believes that the route should not only connect to previously-approved portions of the Transmission Line, but also be routed in such a way to address local service and reliability issues at the least cost to Ameren Illinois area customers, then the Pana connection wins. These local issues can be addressed at a much lower cost to customers if the work is done as part of the Project, instead of separate projects *in addition* to building the Kincaid route. (The mathematics of why this is so are explained *infra* at 10-12.)

It is hard to fathom how the public interest is served by viewing the "service needs" of the Project narrowly, as Staff would have the Commission do. The very concept of MVPs was

to identify projects that serve local *and* regional needs. (MISO Ex. 1.0 (Rev.), p. 18.) Route selection was not an exercise of identifying the shortest distance between substations; it took into consideration local operational and reliability issues that could be addressed by new or additional 345 kV connections. (*Id.*) Through this process, ATXI identified the need to address Decatur-area voltage issues, and the need to improve generator stability at the Coffeen plant. (ATXI Ex. 9.0 (RH), pp. 3-4.) After ATXI developed routes through Pana, the need to relocate the Pana substation came to light. (ATXI Ex. 1.0, (RH), pp. 8, 9, 17.) These are not made-up concerns; they are documented and undisputed. No party has articulated any reason *not* to address these concerns as part of the service needs of the Project.

That ATXI and Staff have differing views on the scope of service needs the Project should address is key to understanding why the routing decision is not really a matter of comparing dollars and cents. ATXI's Pana connection addresses local reliability concerns that Staff's Kincaid route does not. Because these local reliability concerns are properly considered as part of the service needs the Project should address, the fact that the Kincaid connection does *not* address these needs excludes this route as an alternative, regardless of cost. *See, e.g., Union Elec. Co.*, Docket 01-0516, Order at 12-13 (Jan. 15, 2002) (finding that construction of peaking asset and related facilities was the least-cost alternative where other options, including power purchases and distributed generation, were not sufficient to meet the identified service needs before a shortfall in capacity occurred); *Ameropan Oil Corp.* 298 Ill. App. 3d 341 (holding, when two routes were available, but one might not allow the line to be in service to meet the expected load, the Commission's decision to approve the line that would be in service in time was supported by the record).

In short, the Pana connection is technically superior to a connection at Kincaid and is the

least cost option for Ameren Illinois area customers. A connection at Kincaid would not meet Decatur reliability needs in the 2016-2018 timeframe, would impose additional costs on Ameren Illinois area customers to relocate the Pana substation, would delay the in-service dates of the Project, and would ultimately deprive customers of the Project's benefits. (ATXI 10.0 (RH), p. 7.)

The Pana connection will provide benefits that a Kincaid connection will not.

The undisputed evidence is that the Pana connection is technically superior, will provide greater benefits, sooner, and at a lower overall cost to customers than the Kincaid route.

The Pana connection will address Decatur reliability needs by 2016. The Kincaid route cannot be completed until at least 2018, which is too late.

The need to address the reliability of the Decatur area was addressed in the initial proceeding and is not disputed on rehearing. These reliability concerns were a key factor in the Commission's finding that a new Mt. Zion substation is necessary. (Order at 86.) ATXI Exhibit 1.9 (RH) confirms that the Decatur area is prone to low voltage and possible voltage collapse by 2016. ATXI witness Mr. Dennis Kramer explained in detail why the existing electrical configuration in the Decatur area poses this risk. (ATXI Exs. 2.0, pp. 28-29; 2.11; 2.13; 2.14; 11.0, pp. 12-23; 11.1) Ameren Services examined the Decatur area using NERC reliability criteria and determined that reduced 138 kV voltage will be provided if certain transmission equipment is removed from service due to transmission system faults during periods of high customer energy usage. (*See*, *e.g.*, ATXI Ex. 1.9 (RH).) The analysis determined that additional system reinforcements are needed in the Decatur area in 2016 in order to mitigate the risk of voltage collapse in the Decatur area. (ATXI Ex. 1.0 (RH), pp. 17-18.) The expected summer peak load in the Decatur area for the time period 2016-2018 is approximately 690-695 MW, which includes the additional ADM load in 2016. (*Id.*) It is expected that if a voltage collapse

occurred a considerable portion of this load would be disconnected from the grid and lose service.

The timeframe for building the new Mt. Zion substation will not depend on which route the Commission approves. ATXI can build the Mt. Zion substation just as quickly for a Kincaid connection as it can for a Pana connection. But the new Mt. Zion substation will not solve any reliability issues until it is electrically connected.[2] The timing in which these connections can be made makes Pana the better option. ATXI can do everything that needs to be done to connect Pana and Mt. Zion, including another certificate proceeding for 138 kV connections, by the end of 2016. (ATXI Ex. 9.0 (RH), pp. 2-3.) At best, *studies* for a Kincaid to Mt. Zion connection might be completed by the end of 2015. (ATXI Ex. 8.0 (RH), pp. 8-9.) Actual construction will then take until 2018—assuming the detailed planning studies reveal no surprises. (ATXI Ex. 1.0 (RH), p. 17.) This will be too little, too late to address the voltage issues in Decatur.

There are several reasons why it would take longer to execute the Kincaid connection than Pana, but two stand out. First, because the substation is owned by ComEd and located in PJM, planning and coordination are much more involved than connections solely within MISO. (ATXI Ex. 1.0 (RH), pp. 15-17.) The level of review and coordination needed to study and engineer a connection between two RTOs is of a completely different character than developing and connecting the project within a single RTO. (*Id.*) As ATXI witness Mr. Kramer explained, ATXI, AIC, ComEd, MISO and PJM would need to share information and perform system impact studies for each entity's respective electrical system. (*Id.* at 16.) To the extent these

[2] Staff also proposed a substation at Mowequa, some 12 miles from Mt. Zion. (Staff Ex. 2.0, pp. 9-11.) ATXI performed power flow analyses that demonstrated that the substation is electrically inferior as compared to ATXI's original proposal or the Staff proposal agreed to by ATXI and the Village of Mt. Zion. (ATXI Ex. 4.0 (RH), pp. 7-9; 4.3 (RH), 4.4 (RH); ICC Staff Cross Ex. 2, pp. 7-10.) Therefore, this substation would not meet the service needs.

studies identified reliability issues caused by a Kincaid connection, those issues would also need to be resolved before a Kincaid connection could be placed in service. (*Id.* at 17.) This study and review process would take 12 to 15 months, or possibly longer. (*Id*.) By contrast, all of the system impact studies for the Pana connection have already been completed. (*Id.* at 16.)

Second, the Kincaid substation site is essentially landlocked, and this physical constraint makes new connections difficult and costly. There is a factory to the south and ash or waste disposal ponds to the north, east and west. (ATXI Ex. 2.0 (RH), pp. 27-28.) A new transmission line would have to cross one of these ponds, which would require taller towers with deeper foundations. (*Id.*) Transmission lines and terminal structures already in place are located in such a manner that there is no room for a new, additional 150-foot wide right-of-way. (*Id.*) Bringing in a new line would likely require ComEd to move equipment around, further increasing costs. (*Id.*) None of this is refuted, or even addressed, by Staff.

The Decatur reliability issues must be addressed (and will be addressed) regardless of which route the Commission authorizes. The Kincaid route simply will not solve these issues within the time frame they need to be solved.

The Pana connection will provide better stability to the Coffeen plant.

Part of MISO's work in developing the Project was to analyze areas where generator instability could be mitigated by adding transmission capacity. (MISO Ex. 1.0 (Rev.), p. 9.) Improving generation stability allows power plants to withstand major disturbances (such as short circuits, de-energization of transmission lines, and similar system events) and remain connected to the electric grid. (ATXI Ex. 1.0 (RH), pp. 8-9.) Increasing generation stability is a desirable outcome of any transmission system improvement.

As MISO witness Mr. Jeff Webb explained, adding a 345 kV connection in Pana "provides a new outlet from Pana to Sugar Creek, forming a path parallel to the heavily loaded

existing Coffeen outlet to Ramsey 345 kV. This additional capability mitigates the instability condition [at Coffeen]." (MISO Ex. 1.0 (Rev.), p. 21.) ATXI's own analysis confirms that a connection at Pana improved the stability of the Coffeen plant by approximately 10%, as compared to the Kincaid connection, which did not improve Coffeen plant stability at all. (ATXI Ex. 1.0 (RH), pp. 8-9.)

Given the options of a route that improves generator stability versus a route that does not, the choice seems obvious.

The Pana connection will enable substation relocation at a fraction of the cost of building the Kincaid route and relocating the substation separately.

As ATXI has explained, there is a need to relocate the Pana substation due to mine subsidence. (*See, e.g.* ATXI Ex. 9.0 (RH), pp. 3-5.) If the substation is relocated as part of the Project, the costs will be borne in the same proportion as Project costs generally, which is approximately 9% for Ameren Illinois area customers. (ATXI Ex. 2.0 (RH), p. 29.) If the substation is relocated as a stand-alone activity separate from the Project, Ameren Illinois area customers will bear 100% of the cost. (ATXI Ex. 1.0 (RH), p. 5; *see also* ATXI Ex. 1.6 (RH) (comparing the estimated cost to customers of the Pana connection, including the substation relocation ($18.3 million) against the cost of the Pana substation if conducted as a stand-alone project ($32.9 million)).) This cost disparity is so because, as Mr. Kramer explained, if a Kincaid connection is approved, the Transmission Line will not connect to the Pana substation. Costs associated with the Pana substation cannot then, by definition, be considered part of the Project. (ATXI Ex. 1.0 (RH), p. 9; Tr. 124.)

The reduced cost to Ameren Illinois area customers from sharing the cost of the Pana relocation, resulting in a lower overall cost of the Project for these customers, would be sufficient on a stand-alone basis to justify the Pana connection relative to a Kincaid connection.

The evidence shows that the Pana connection completes the Project in a way that also addresses the service needs discussed above. The fact that the Pana connection will allow necessary work to be done at a reduced cost to customers while addressing all service needs demonstrates that the Pana connection is the superior option to a Kincaid connection and should be approved.

Approving the Kincaid route would ultimately result in greater costs and fewer benefits.

If the Commission concludes that it is appropriate to consider service needs beyond just connecting the Transmission Line—including, for example, the need to address Decatur reliability in 2016 and the need to address generator stability—then the next logical step is to consider what it would cost to address these service needs with the Kincaid connection versus the Pana connection. No one can dispute that addressing these service needs would be far more expensive with the former than the latter.

The "all in" cost of the Pana connection to Illinois customers is approximately $18 million. (ATXI Exs. 1.0 (RH), p. 5; 1.6 (RH).) This includes the Transmission Lines from Pawnee to Pana to Mt. Zion and relocation of the Pana substation. The Kincaid connection would cost at least $44 million. (ATXI Exs. 1.0 (RH), p 5; 1.6 (RH).) (ATXI would underscore "at least" because the $44 million figure does not include any upgrades, repairs or enhancements that could (and probably would) be identified in the study process Mr. Kramer described for coordination among MISO, PJM, ATXI, AIC and ComEd. (*Id.*)) A significant factor in the cost disparity is, again, a function of how MVP cost sharing works. Nearly $33 million of the $44 million cost to connect at Kincaid is attributable to the relocation of the Pana substation as a separate project. (ATXI Ex. 1.6 (RH).) Thus, any "savings" from the shorter Kincaid route are more than offset by other costs that would be incurred if that route is built.

Selecting the Kincaid connection over the Pana connection would not eliminate the need to address Decatur reliability concerns by 2016. Additional system reinforcements would be

needed to address the Decatur area reliability issues between 2016 and 2018, due to the inability of the Kincaid connection to address them on time. (ATXI Exs. 1.0 (RH), pp. 6-7; 7.0 (RH), pp. 5-6.) ATXI's studies show that its proposed Pana to Mt. Zion connection is the best means of addressing these reliability issues. (ATXI Ex. 7.0 (RH), pp. 5-6.) Consequently, ATXI may need to build this route *regardless* of the outcome of this proceeding, as a stand-alone reliability project for which MISO cost sharing is not available. (*Id.*) If the Kincaid option is selected, then the cost of such a Pana to Mt. Zion line will be borne by Ameren Illinois area customers solely. (*Id.*)

Also to be considered is that the Kincaid option means that Ameren Illinois customers will bear the full cost of the Pana substation relocation. (ATXI Exs. 1.0 (RH), p. 5; 1.6 (RH); 2.0 (RH), p. 29.) In response to the ALJs' questioning, Mr. Kramer affirmed that if the Kincaid option is chosen, any work done within the Pana substation, such as relocating and rebuilding, would not be subject to the MVP cost sharing and would be borne by the Ameren Illinois customers as a reliability project. (Tr. 124.)

The Pana option will cost customers $18 million, the Kincaid option $44 million. (ATXI Ex. 1.6 (RH).) The Kincaid option *does not provide a single additional benefit* over Pana. These options again seem to present an obvious choice.

The Pana routes have been fully vetted and are generally uncontested. The Kincaid route still harbors uncertainty.

The Pana routes have been vetted and hold no surprises. The Pawnee to Pana route was not opposed by anyone, either in the original proceeding or on rehearing. (Ramey/Reynolds object to how the line impacts their property, but they have not proposed a wholesale re-routing for this segment. (*See* Raynolds/Ramey Ex. 1.0, pp. 8-16.)) The Pana to Mt. Zion route was opposed in the original proceeding, but was *not* opposed on rehearing—and in fact is now agreed

to by the Village of Mt. Zion as well as ATXI and MCPO. (Stip. Ex. 1 (RH), MCPO Ex. 1.0 (RH), p. 24.) The point is that parties with something to say about the routes in and out of Pana have had ample opportunity to say it.

The same cannot be said for the Kincaid route. Staff acknowledges it did not have much time to develop the route, and did not solicit nor receive feedback from stakeholders in developing the route. (ICC Staff Ex. 2.0, p. 7.) Additional questions were raised at hearing about the viability of the Kincaid route after it came to light that the Macon County Conservation District owns land that the route might need to cross—but cannot cross. (Tr. 376-78.) ATXI is not in a position to say (and is not saying) that the Kincaid route cannot be built. But ATXI also cannot say—and does not believe Staff can say, either—that all potential factors impacting the feasibility and cost of the route have been identified.

In the final analysis, debating further whether the Transmission Line should connect at Kincaid or Pana strikes ATXI as unproductive. This is not to suggest that the Commission or Staff have asked illegitimate questions in this rehearing. The Kincaid connection looks appealing on a map, and the Commission deserves to know why ATXI is opposing a shorter route. The devil is in the details, and rehearing has allowed these details to be fully vetted.

Simply put, the Kincaid routing alternative cannot be completed in time to address the service needs identified along the Project route. It is technically inferior and fails to provide the benefits the Pana routes offer, all at greater cost to Ameren Illinois area customers.

IV. Rehearing Routes

A. Meredosia-Pawnee

The Commission previously approved a route from Meredosia to Pawnee that was the subject of a stipulation between ATXI, Morgan and Sangamon Counties Landowners and Tenant Farmers (MSCLTF), and FutureGen Industrial Alliance, Inc. (FutureGen). (Order at 77.) This

route was identified as ATXI's Alternate Route at the beginning of this case. Morgan, Sangamon and Scott County Land Preservation Group (MSSCLPG) sought rehearing to provide evidence supporting a different route (specifically, a route MSCLTF initially proposed, but later abandoned.) MSSCLPG has not provided new information that warrants reversal of the Commission's decision. The group raises largely the same concerns on rehearing as in the initial proceeding regarding, for example, potential interference with farming, crop or soil damage, and property values. (*See generally* MSSCLPG Exs. 5.0; 7.0; 8.0; 9.0; 10.0; 11.0.) Their basic complaint, however, is that the line will run too close to their property. (*Id.*)

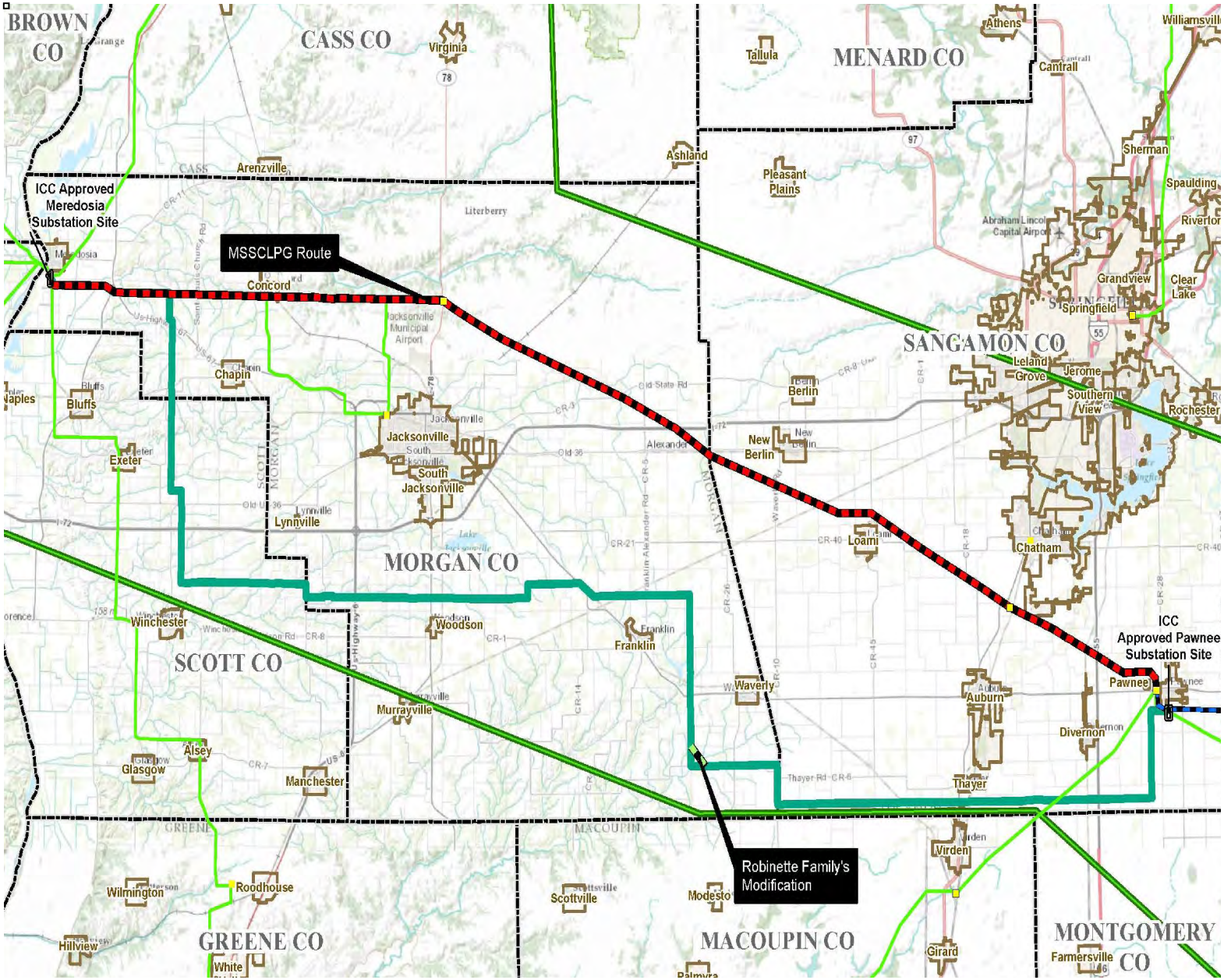
The MSSCLPG route is superficially appealing because it is shorter and would cost less to build. Staff, too, makes the same claim. (ICC Staff Ex. 4.0, p. 2.) Weighing against these considerations, however, is the fact that the MSSCLPG parallels an existing 138 kV line for its *entire* 57-mile length. MSSCLPG will no doubt charge ATXI with being inconsistent because ATXI itself proposes to parallel existing transmission lines on the Pawnee to Pana, Pana to Mt Zion and Mt. Zion to Kansas routes. What makes these other routes different, among other factors, is the distance the new line will parallel existing lines. The Pawnee to Pana route parallels approximately 11 miles. (ATXI Ex. 4.2, Part 1 of 100, p. 14.) Pana to Mt. Zion parallels approximately 14 miles. (*Id.* at 15.) The paralleling for the stipulated Mt. Zion to Kansas route is just under 15 miles. (MCPO Ex 4.1 (RH), p. 1.) In fact, the total amount of paralleling throughout the Project is nearly 80 miles; the MSSCLPG route increases the amount of paralleling by 70%. (ATXI Ex. 9.0 (RH), p. 8.) So, the MSSCLPG route is *not* like the other routes where ATXI has proposed or agreed to parallel existing lines. It is because of the extensive length that the MSSCLPG route will parallel existing lines, and the factors described below, that ATXI opposes it. ATXI recommends the Commission re-approve the ATXI

Alternate Route.

ATXI balanced a host of factors to identify the least-cost route for each portion of the Project. It considered electrical and engineering factors such as reliability, operations, and maintenance, and also environmental, societal, and land use factors. In some cases, the environmental, societal, and land use issues related to a portion of the line outweighed the reliability, operations and maintenance concerns that result from constructing parallel lines in close proximity. In those instances, ATXI proposed paralleling the Project's Transmission Line to an existing one. (ATXI Ex. 2.0 (RH), p. 32.) But with the Meredosia to Pawnee segment, given the length of the line, the operational reliability and maintenance issues outweigh factors supporting the MSSCLPG route.

For this segment, the Commission must therefore consider the balance of cost against operational reliability. The horrific tornados that tore through central Illinois this past November make clear the risk facing AIC customers. A double circuit tower line, with a 138 kV circuit and a 69 kV circuit, was knocked down in the Peoria area. (ATXI Ex. 5.0 (RH), p. 5.) Other 138 kV lines were downed, and in the Kansas area a 345 kV circuit experienced the destruction of five structures and damaged conductors. (*Id.*) ATXI does not consider this type of risk worth the potential cost savings for this segment.

ATXI Figure 1: Meredosia - Pawnee



Source: ATXI Ex. 3.0 (RH), p. 6, Figure 2.

1. Length of Line

	Stipulated Route / ATXI Alternate Route	MSSCLPG Route
Estimated Length in Miles	75.6	57.3

(ICC Staff Ex. 1.0R, p. 27.)

2. Difficulty and Cost of Construction

	Stipulated Route / ATXI Alternate Route	MSSCLPG Route
Estimated Baseline Cost	$144.205 million	$107.423 million

(ATXI Ex. 16.3 (Rev.), p. 4.)

3. Difficulty and Cost of Operation and Maintenance

The MSSCLPG route parallels an existing 138 kV line for its entire 57.3-mile length. ATXI has explained that paralleling transmission lines causes operational, maintenance and reliability issues, and therefore should be avoided when possible. (ATXI Exs. 12.0 (Rev.), pp. 4-10.), 2.0 (RH), p. 32; 5.0 (RH), pp. 4-10; and 9.0 (RH), pp. 7-9.)

The evidence in the case demonstrates the capability of the existing 138 kV circuits in any given area is quite different. In operation, common mode failures occur, and when they occur in areas where the system is less robust, ATXI witness Mr. Hackman explained more customers are outaged or at risk. (ATXI Ex. 9.0 (RH) p. 8.) For this reason, ATXI continues to support a non-parallel route from Meredosia to Pawnee. (*Id.*)

ATXI's position is not inconsistent with its position on parallel routes for other portions of the Project. Kansas, for example, has other 345 kV sources and good 138 kV circuits connecting it to other relatively strong sources. (ATXI Ex. 9.0 (RH) p. 8.) Thus, the same reliability concern is not present for the portion of the Mt. Zion to Kansas Stipulated Route (15

of 70 miles) that parallels into the Kansas substation as it is for the Meredosia to Pawnee segment. (*Id.*)

4. Environmental Impacts

The Commission made a determination regarding this criteria based on the evidence presented in the underlying case. In its August 2013 Order, the Commission found that, with respect to environmental impacts, there is no material difference between the Stipulated Route and the MSSCLPG Route. (Order at 77.) MSSCLPG has provided no evidence on rehearing for this criteria that would warrant reversal of the Commission's original determination in its approval of the Stipulated Route.

5. Impacts on Historical Resources

The Commission made a determination regarding this criteria based on the evidence presented in the underlying case. The Commission found that, with respect to impacts on historical resources, there is no material difference between the Stipulated Route and the MSSCLPG Route. (Order at 77.) The record evidence on rehearing shows there are five archaeological sites along the Stipulated Route, and three along the MSSCLPG route, but that all such sites can be spanned. (ATXI Ex. 3.0 (RH), p. 8.)

6. Social and Land Use Impacts

The Commission made a determination regarding this criteria based on the evidence presented in the underlying case. The Commission found that, with respect to social and land use impacts, there is no material difference between the Stipulated Route and the MSSCLPG Route. (Order at 77.) MSSCLPG has provided no evidence on rehearing on this criteria that would warrant reversal of the Commission's original determination in its approval of the Stipulated Route.

7. Number of Affected Landowners and other Stakeholders

	Stipulated Route / ATXI Alternate Route	MSSCLPG Route
Number of affected landowners/stakeholders	273 (approx.) affected landowners	186 (approx.) affected landowners

(ATXI Ex. 3.0 (RH), p. 8.)

8. Proximity to Homes and Other Structures

	Stipulated Route / ATXI Alternate Route	MSSCLPG Route
Residences within 0-75 feet of centerline	0	0
Residences within 75-150 feet of centerline	9	Not specified
Residences within 0-500 feet of centerline	42	Not specified

(ATXI Ex. 3.1 (RH), p. 4.)

9. Proximity to Existing and Planned Development

Neither the Stipulated Route nor the MSSCLPG route is located in proximity to planned development. (ATXI Ex. 3.0 (RH), p. 8.) MSSCLPG witness Mr. Neimeyer claims the Stipulated Route would impact a 47 acre plot of land he owns and plans to develop into a subdivision. (MSSCLPG Ex. 7.0, pp. 1-2.) However, MSSCLPG never substantiated this claim. There is no record evidence concerning the proximity of either route to existing development that would warrant reversing approval of the Stipulated Route.

10. Community Acceptance

The Stipulated Route has garnered the widest community acceptance, as evidenced support for the route provided by FutureGen, the Pearce Family, and MSCLTF.

11. Visual Impact

The Commission made a determination regarding this criteria based on the evidence

presented in the underlying case. In its August 2013 Order, the Commission found that, with respect to environmental impacts, there is no material difference between the Stipulated Route and the MSSCLPG Route. (Order at 77.) MSSCLPG has provided no evidence on rehearing on this criteria that would warrant reversal of the Commission's original determination in its approval of the Stipulated Route.

12. Presence of Existing Corridors

The Stipulated Route follows an existing transmission line for approximately four miles, section, property and field lines, and county roads. (ATXI Ex. 4.2, part 1 of 100, pp. 10-11; *See also* ATXI Ex. 4.6, part 5 of 10; ATXI Ex. 4.4 (listing all opportunities).) The MSSCLPG route parallels an existing 138 kV line for its entire length, which presents reliability, operational and maintenance concerns as compared to the Stipulated Route. (ATXI Exs. 12.0 (Rev.), pp. 4-10; 2.0 (RH), p. 32; 5.0 (RH), pp. 4-10; and 9.0 (RH), pp. 7-9.)

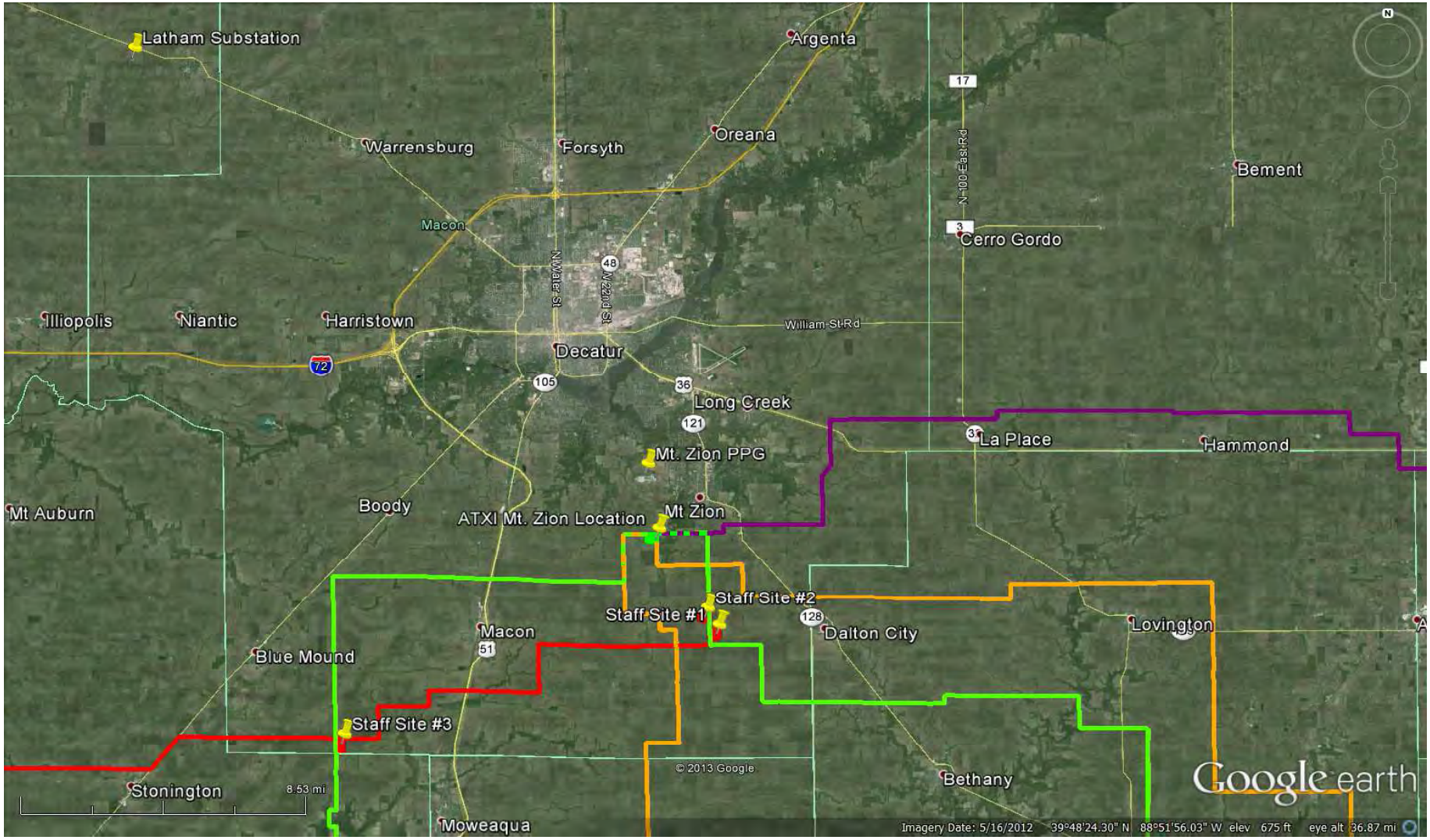
B. Location of Mt. Zion Substation

The location of the Mt. Zion substation does not appear to be a matter of meaningful dispute. The Commission's August 2013 Order found that a substation was needed in the Mt. Zion area. (Order at 86.) ATXI originally proposed a location close to the Village of Mt. Zion. (ATXI Ex. 2.10 (RH).) On rehearing, however, Staff proposed two locations in close proximity to each other a few miles south of ATXI's original proposal, specifically acknowledging that one site chosen was the same as proposed by the Village of Mt. Zion. (ICC Staff Ex. 5.0, ¶ 4.) ATXI agreed that, although not preferred, these locations were acceptable. (ATXI Exs. 4.0 (RH), p. 9; 7.0 (RH), pp. 6-7.) Both MCPO and PDM, the two parties contesting the Mt. Zion to Kansas route, also found these two Staff substation sites acceptable. (MCPO Ex. 1.0 (RH) 2C, pp. 6-7; PDM Ex. 6.0, p. 4.) ATXI then entered into a stipulation with the Village of Mt. Zion agreeing to recommend approval of one these Staff-proposed sites—Staff substation Option #2.

(Stip. Ex. 1 (RH).) Given that Staff, ATXI, the Village of Mt. Zion, PDM and MCPO agree that this site would work, the Commission should approve it. ATXI notes that use of Staff substation Option #2 can be accommodated using modifications of existing route proposals as described below and shown on the following map:

ATXI Figure 2: Pana - Mt. Zion - Kansas

Overview Map of the Four Mt. Zion Substation Locations



ATXI Primary Route
ATXI Alternate Route
MCPO MZK Route
ICC Staff Route